

I CLAIM:

1. A method of triggering production of comfort noise during a telephone call over an IP network, the IP network including a transmitting computer for transmitting a voice signal generated by a telephone and a receiving computer for receiving the voice signal, the method comprising:

detecting a silent period in a voice signal at the transmitting computer;

sending a triggering packet from the transmitting computer to the receiving computer;

- receiving the triggering packet at the receiving computer; and
generating comfort noise at the receiving computer in response to receiving the triggering packet.

2. The method of claim 1, wherein detecting a silent period in the voice signal at the transmitting computer includes detecting a drop in the voice signal amplitude below a predetermined threshold.

3. The method of claim 1, further comprising waiting a first predetermined period of time after detecting a silent period before sending the triggering packet.

4. The method of claim 3, wherein the triggering packet is withheld if a voice signal is detected during the first predetermined period of time.

5. The method of claim 1, wherein sending a triggering packet includes periodically sending a triggering packet until a voice signal is detected.

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6. The method of claim 1, wherein the comfort noise is generated for a second predetermined amount of time.

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7. The method of claim 6, wherein the generation of comfort noise is discontinued after the predetermined amount of time has passed unless another triggering packet is received during the predetermined amount of time.

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8. The method of claim 1, wherein comfort noise is generated continuously after receiving a triggering packet until a stop packet is received from the transmitting computer.

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9. The method of claim 8, wherein the stop packet is a packet containing voice data.

10. The method of claim 8, wherein the stop packet is a token packet that precedes a voice signal packet.

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11. A method of producing comfort noise during conversational pauses in the course of a telephone call over an IP network, the IP network including a transmitting computer for transmitting a voice signal generated by a telephone and a receiving computer for receiving the voice
5 signal, the method comprising:

detecting a conversational pause at the transmitting computer;
stopping the transmission of voice data packets during the pause;

and

transmitting a message to the receiving computer directing the
10 receiving computer to produce comfort noise for a user of a telephone connected to the receiving computer.

12. The method of claim 11, wherein transmitting a message
15 to the receiving computer includes sending a data packet to the receiving computer.

13. The method of claim 11, wherein sending a data packet to
20 the receiving computer includes periodically sending a data packet to the receiving computer.

14. A method of causing the production of comfort noise during a telephone call over an IP network, the IP network including a transmitting computer that transmits voice data and a receiving computer that receives voice data, the method comprising:

- 5 detecting silence in the voice signal at the transmitting computer;
 sending a triggering packet from the transmitting computer to the receiving computer to trigger the receiving computer to generate comfort noise for a first predetermined period of time;
 waiting a second predetermined period of time; and
10 if no voice signal is detected by the transmitting computer during the second predetermined period of time, repeating the sending and waiting steps.

- 15 15. The method of claim 14, wherein the second predetermined period of time is longer than the first predetermined period of time.

16. An IP telephone system configured to transmit a voice signal produced at a telephone over an IP network, the IP telephone system comprising:

5 a transmitting computer configured to be connected to a first telephone and to the IP network; and

a receiving computer configured to be connected to a second telephone and to the IP network;

10 wherein the transmitting computer is configured to detect a pause in a voice signal from the first telephone and to transmit a triggering packet to the receiving computer upon detection of the pause; and

wherein the receiving computer is configured to receive the triggering packet and, upon receipt of the triggering packet, to generate a comfort noise for a listener on the second telephone.

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17. The IP telephone system of claim 16, wherein the transmitting computer is configured to periodically send a triggering packet to the receiving computer until a voice signal is detected.

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18. The IP telephone system of claim 16, wherein the receiving computer is configured to generate comfort noise for a predetermined generating period upon receipt of the triggering packet.

19. The IP telephone system of claim 16, wherein the transmitting computer is configured to send a single triggering packet to the receiving computer upon detection of the pause.

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20. The IP telephone system of claim 19, wherein the receiving computer is configured to generate the comfort noise for the listener continuously until a stop packet is received by the receiving computer from the transmitting computer.

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21. The IP telephone system of claim 20, wherein the stop packet is a voice data packet.

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22. The IP telephone system of claim 20, wherein the stop packet is a token packet sent by the transmitting computer upon detecting a voice signal.